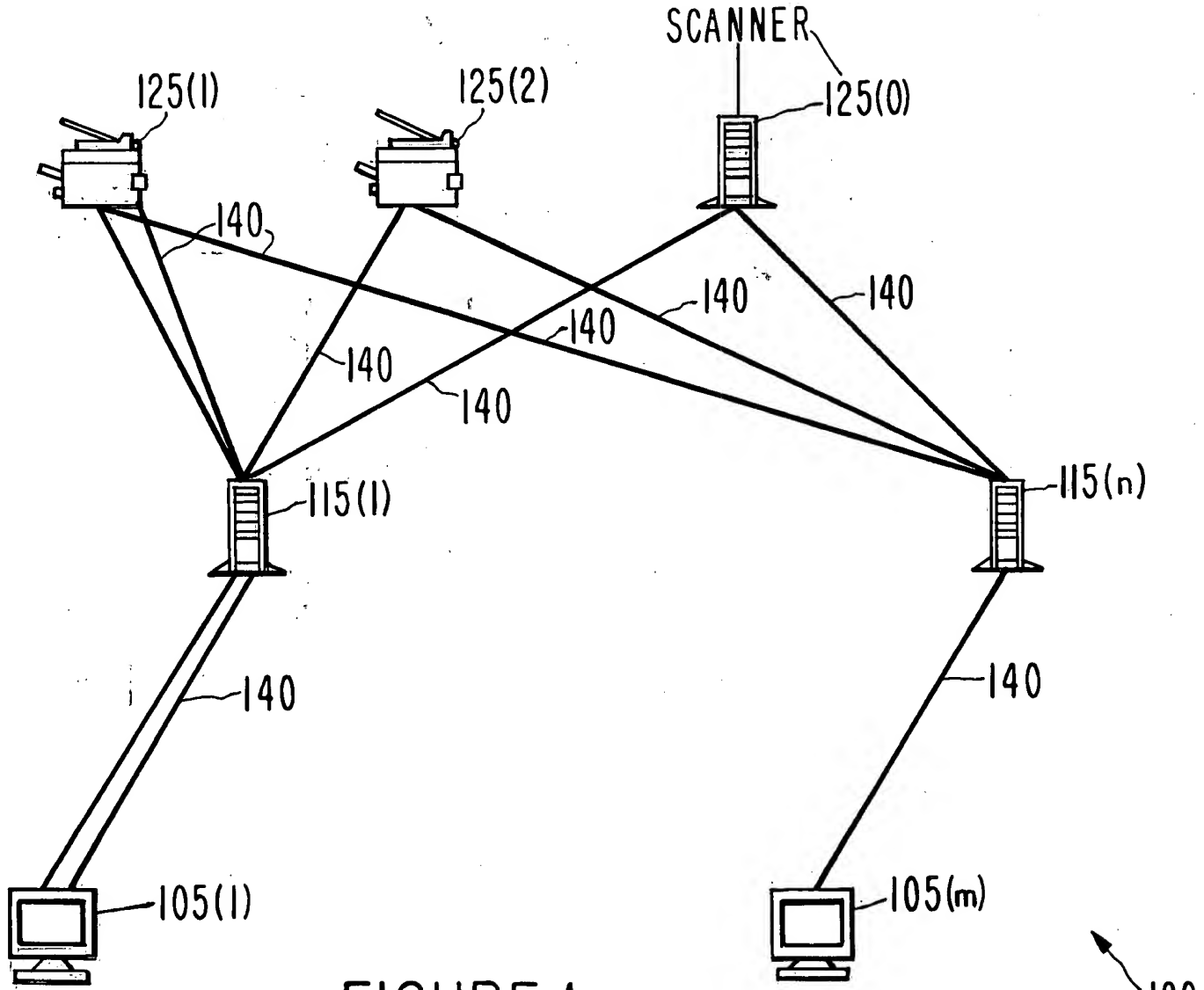

SCANNER
125(1)
125(2)
125(0)
140
140
140
140
140
140
115(1)
115(n)
140
140
105(1)
105(m)
100

FIGURE 1

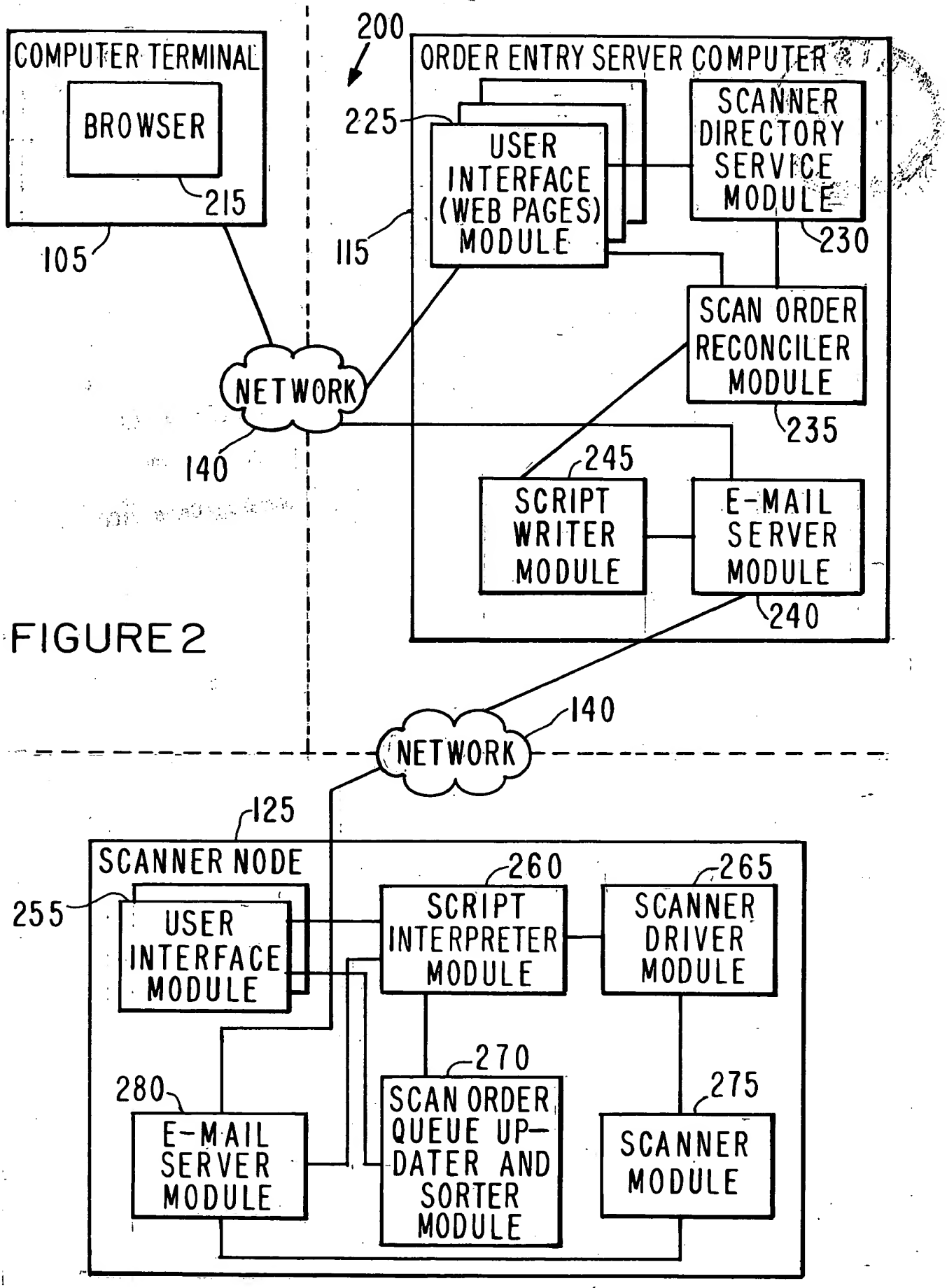

COMPUTER TERMINAL
BROWSER
215
105
200
ORDER ENTRY SERVER COMPUTER
225
USER INTERFACE (WEB PAGES) MODULE
115
SCANNER DIRECTORY SERVICE MODULE
230
SCAN ORDER RECONCILER MODULE
235
NETWORK
140
245
SCRIPT WRITER MODULE
E-MAIL SERVER MODULE
240
NETWORK
140
125
SCANNER NODE
255
USER INTERFACE MODULE
260
SCRIPT INTERPRETER MODULE
265
SCANNER DRIVER MODULE
270
280
E-MAIL SERVER MODULE
SCAN ORDER QUEUE UP-DATER AND SORTER MODULE
275
SCANNER MODULE

FIGURE 2

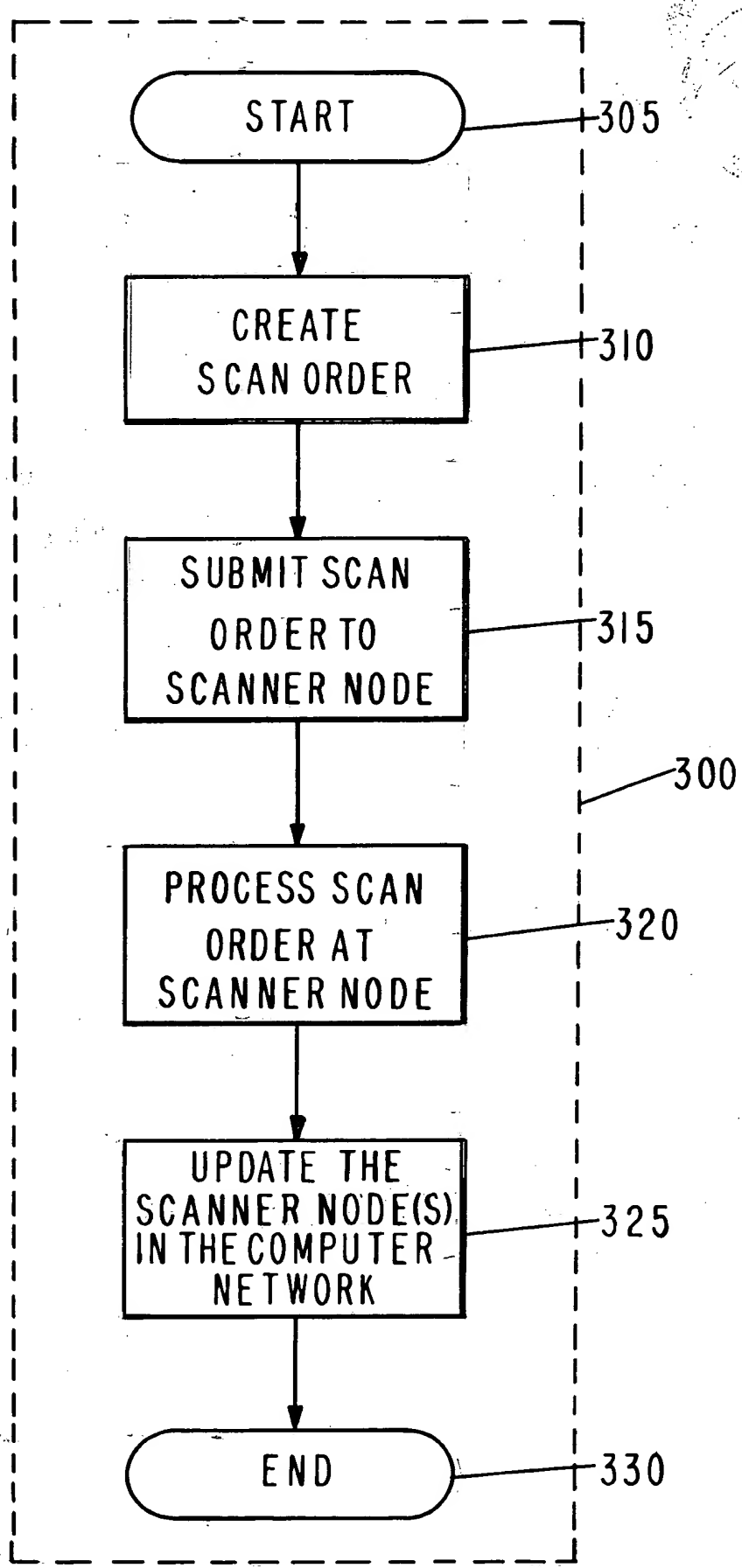

START
305
CREATE SCAN ORDER
310
SUBMIT SCAN ORDER TO SCANNER NODE
315
300
PROCESS SCAN ORDER AT SCANNER NODE
320
UPDATE THE SCANNER NODE(S) IN THE COMPUTER NETWORK
325
END
330

FIGURE.3

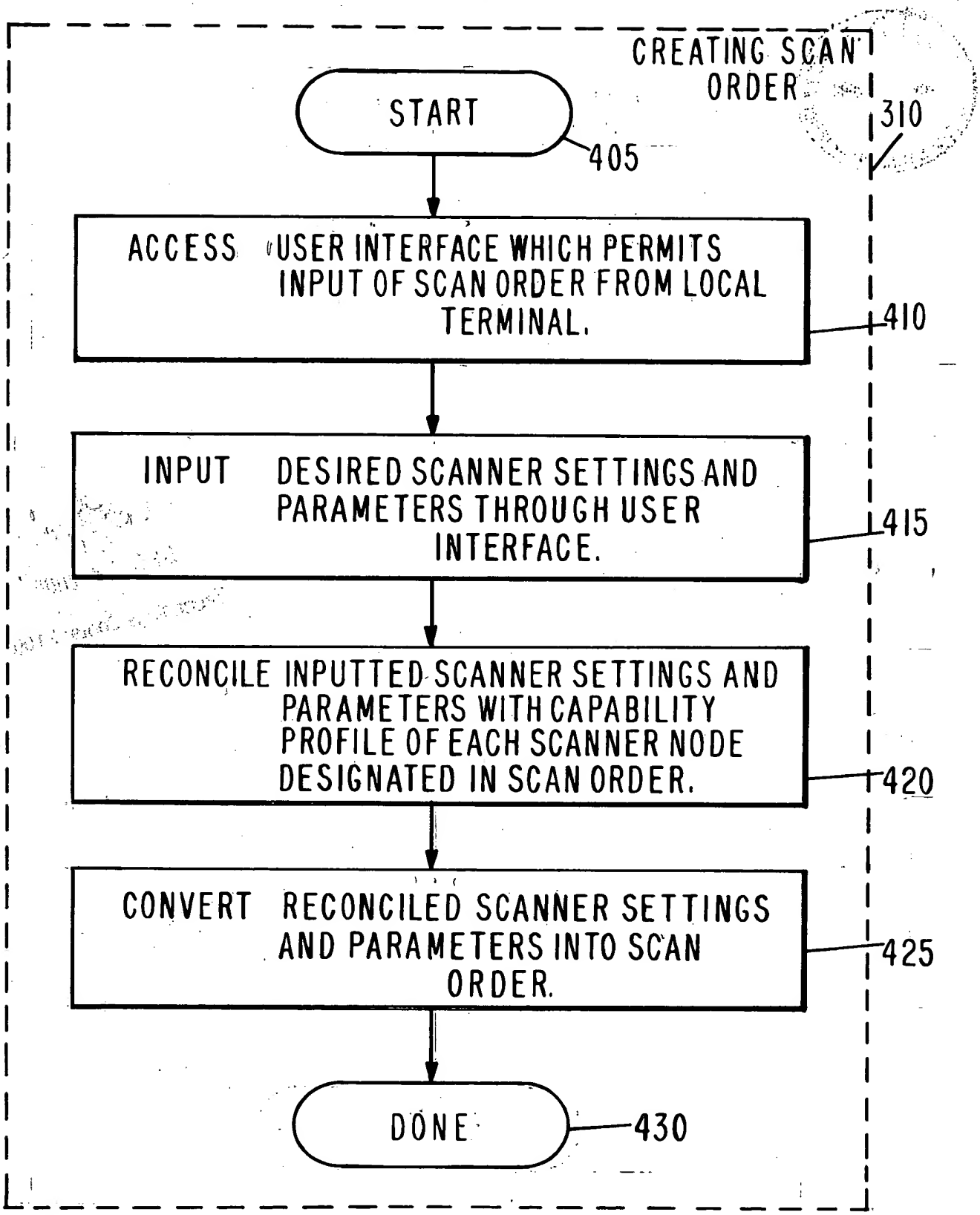

CREATING SCAN ORDER
310
START
405
ACCESS USER INTERFACE WHICH PERMITS INPUT OF SCAN ORDER FROM LOCAL TERMINAL.
410
INPUT DESIRED SCANNER SETTINGS AND PARAMETERS THROUGH USER INTERFACE.
415
RECONCILE INPUTTED SCANNER SETTINGS AND PARAMETERS WITH CAPABILITY PROFILE OF EACH SCANNER NODE DESIGNATED IN SCAN ORDER.
420
CONVERT RECONCILED SCANNER SETTINGS AND PARAMETERS INTO SCAN ORDER.
425
DONE
430

FIGURE 4

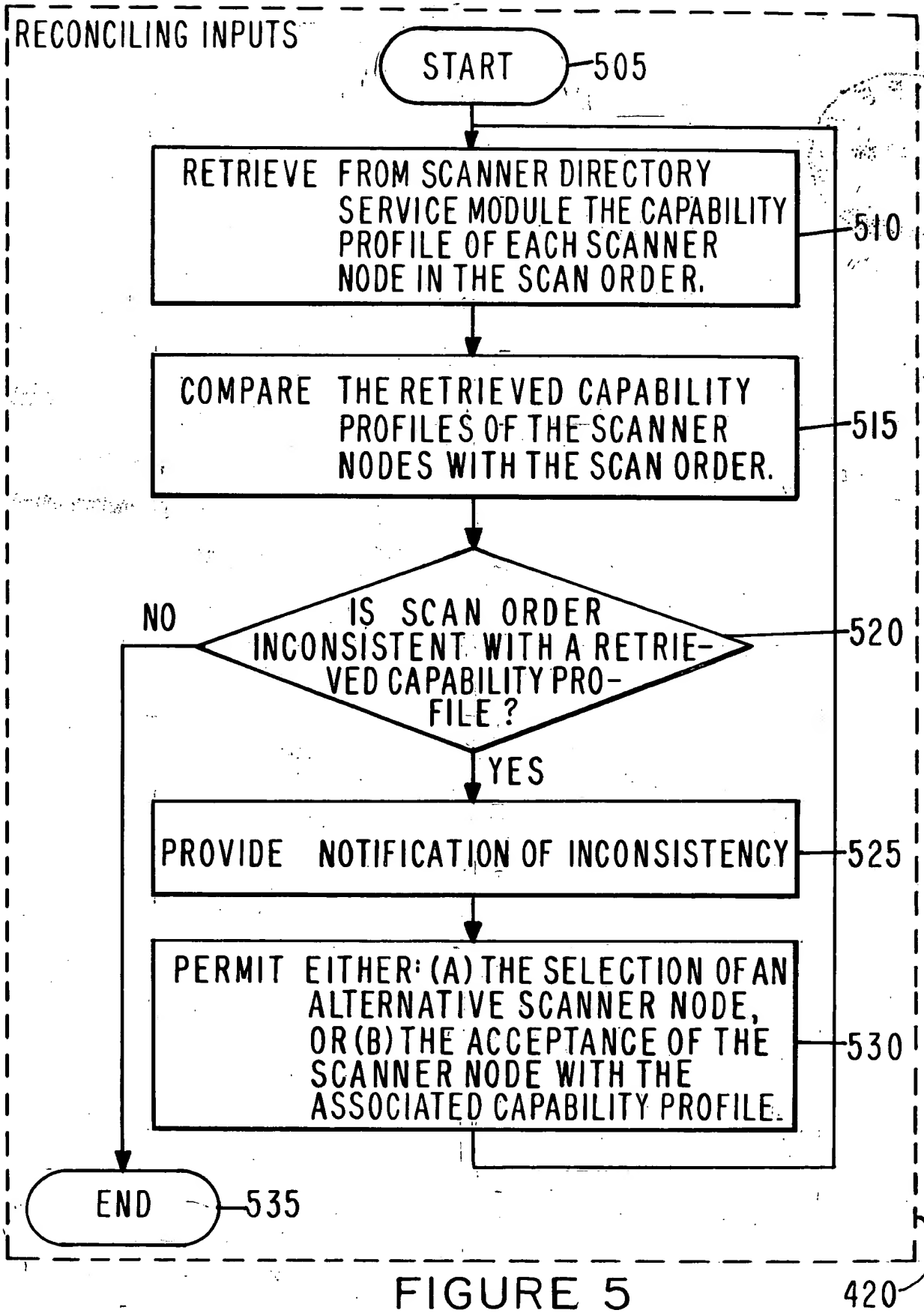

RECONCILING INPUTS
START
505
RETRIEVE FROM SCANNER DIRECTORY SERVICE MODULE THE CAPABILITY PROFILE OF EACH SCANNER NODE IN THE SCAN ORDER.
510
COMPARE THE RETRIEVED CAPABILITY PROFILES OF THE SCANNER NODES WITH THE SCAN ORDER.
515
IS SCAN ORDER INCONSISTENT WITH A RETRIEVED CAPABILITY PROFILE?
520
NO
YES
PROVIDE NOTIFICATION OF INCONSISTENCY
525
PERMIT EITHER: (A) THE SELECTION OF AN ALTERNATIVE SCANNER NODE, OR (B) THE ACCEPTANCE OF THE SCANNER NODE WITH THE ASSOCIATED CAPABILITY PROFILE.
530
END
535
420

FIGURE 5

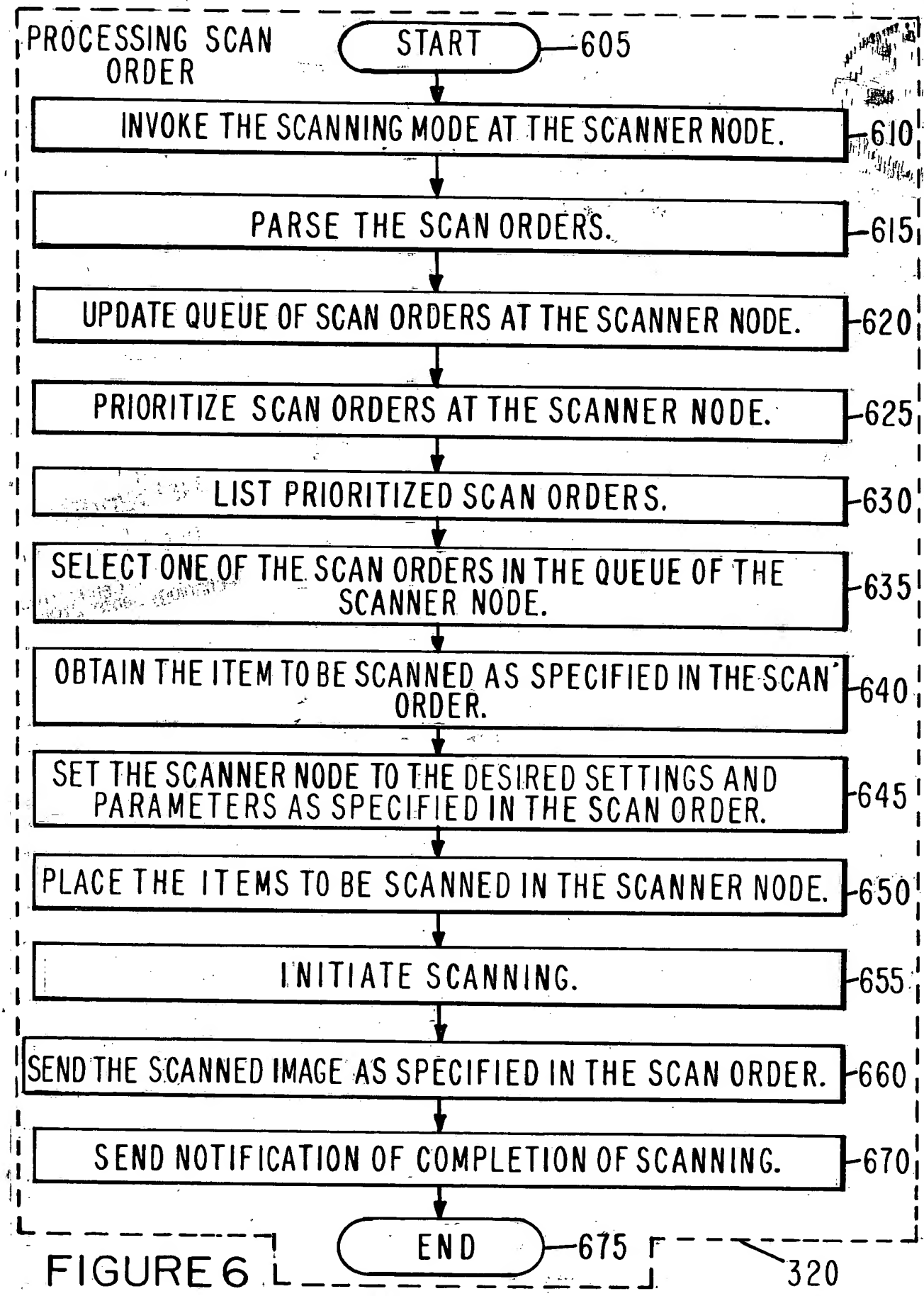
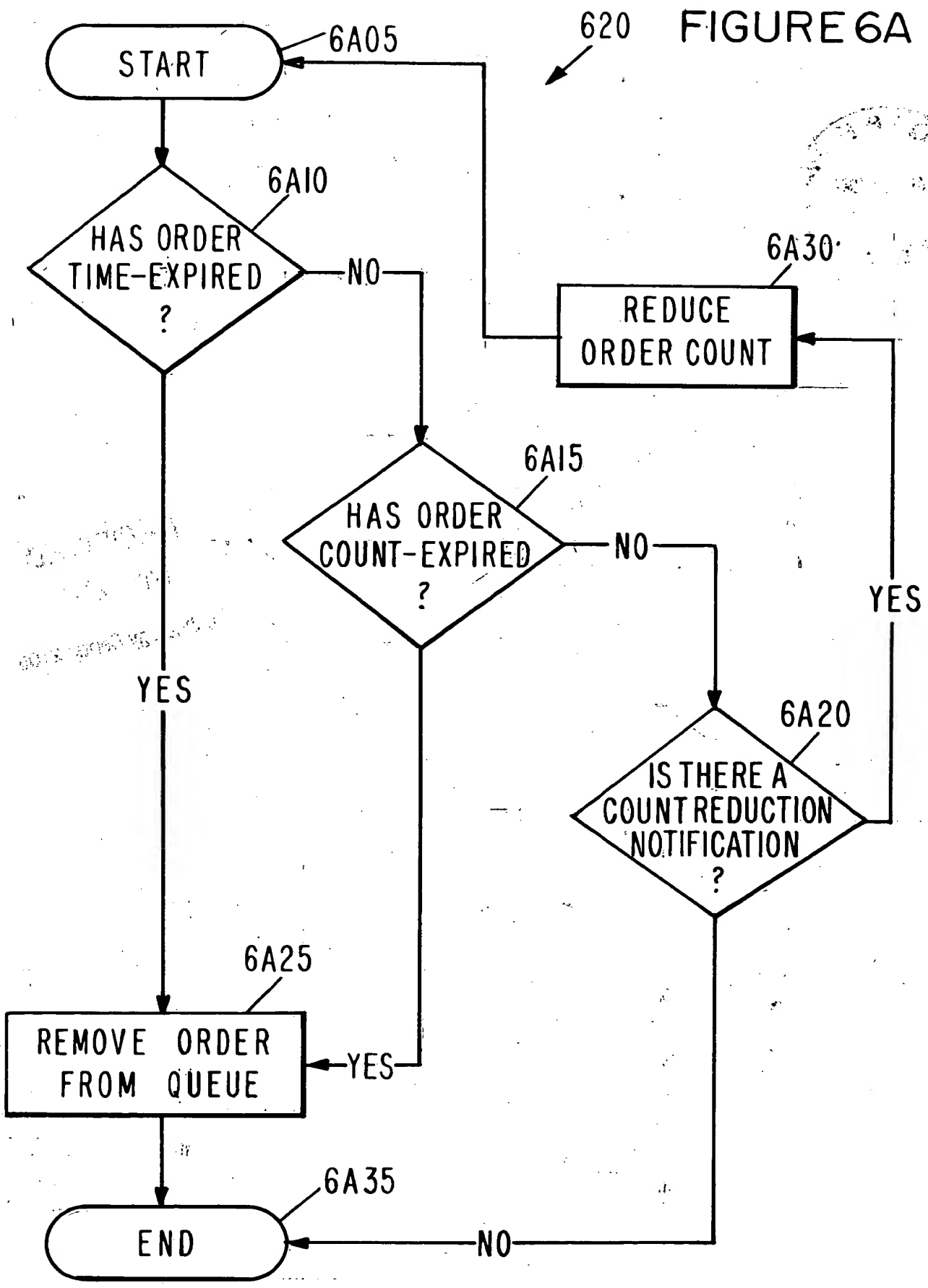

PROCESSING SCAN ORDER
START
605
INVOKE THE SCANNING MODE AT THE SCANNER NODE.
610
PARSE THE SCAN ORDERS.
615
UPDATE QUEUE OF SCAN ORDERS AT THE SCANNER NODE.
620
PRIORITIZE SCAN ORDERS AT THE SCANNER NODE.
625
LIST PRIORITIZED SCAN ORDERS.
630
SELECT ONE OF THE SCAN ORDERS IN THE QUEUE OF THE SCANNER NODE.
635
OBTAIN THE ITEM TO BE SCANNED AS SPECIFIED IN THE SCAN ORDER.
640
SET THE SCANNER NODE TO THE DESIRED SETTINGS AND PARAMETERS AS SPECIFIED IN THE SCAN ORDER.
645
PLACE THE ITEMS TO BE SCANNED IN THE SCANNER NODE.
650
INITIATE SCANNING.
655
SEND THE SCANNED IMAGE AS SPECIFIED IN THE SCAN ORDER.
660
SEND NOTIFICATION OF COMPLETION OF SCANNING.
670
END
675
320

FIGURE 6


620
FIGURE 6A
START
6A05
6A10
HAS ORDER TIME-EXPIRED ?
NO
YES
6A30
REDUCE ORDER COUNT
6A15
HAS ORDER COUNT-EXPIRED ?
NO
YES
6A20
IS THERE A COUNT REDUCTION NOTIFICATION ?
6A25
REMOVE ORDER FROM QUEUE
YES
6A35
END
NO

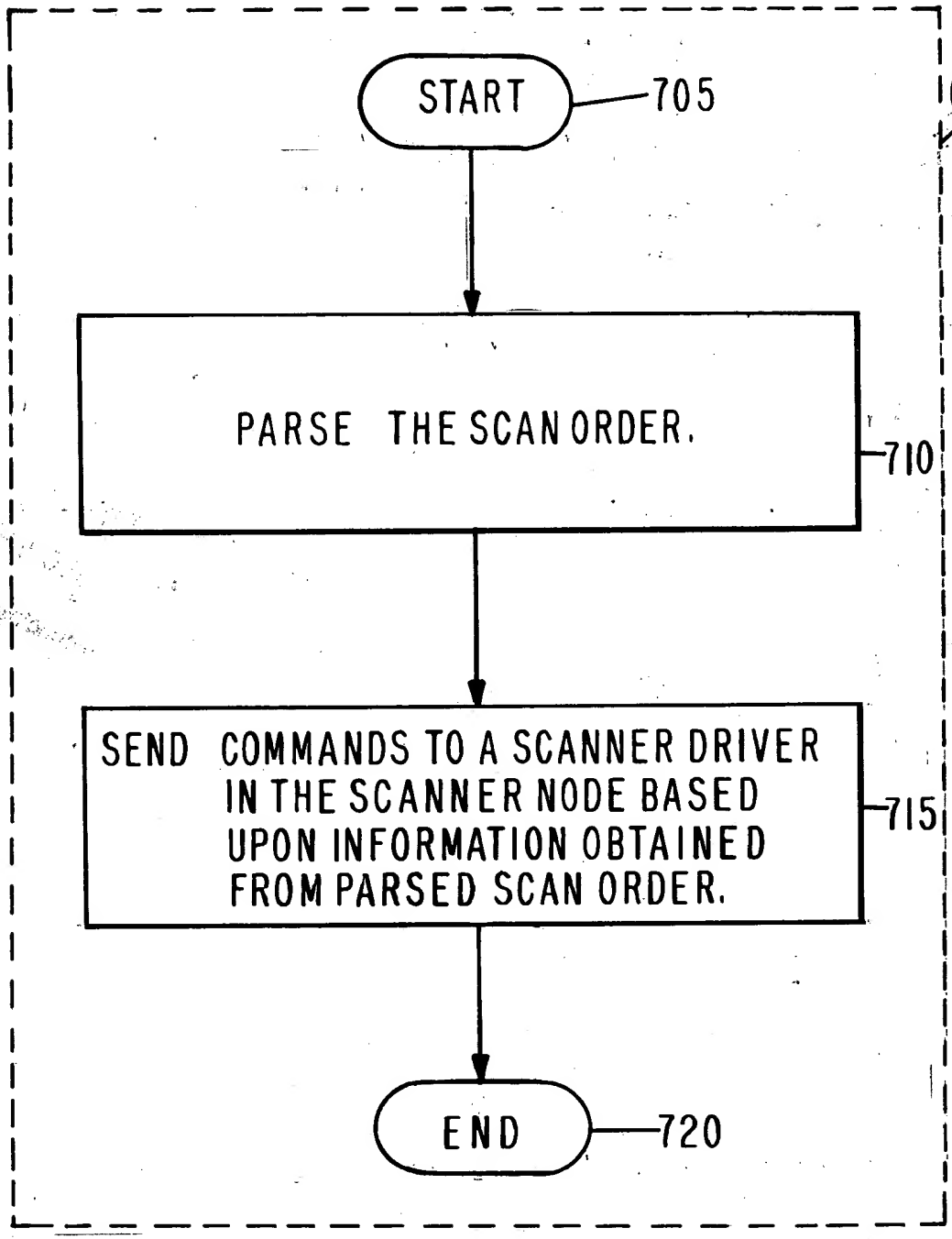

START
705
645
PARSE THE SCAN ORDER.
710
SEND COMMANDS TO A SCANNER DRIVER IN THE SCANNER NODE BASED UPON INFORMATION OBTAINED FROM PARSED SCAN ORDER.
715
END
720

FIGURE 7

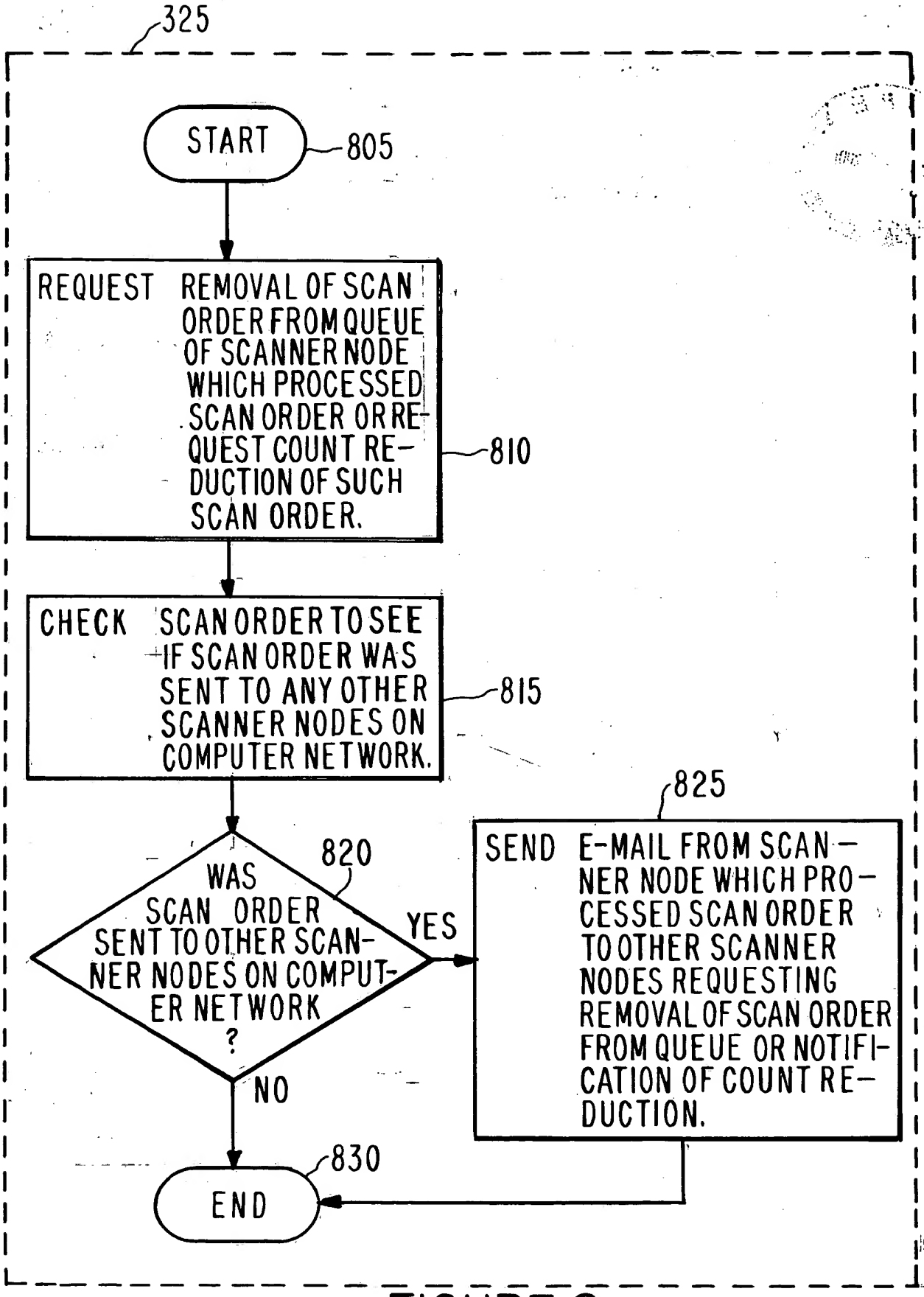

325
START
805
REQUEST REMOVAL OF SCAN ORDER FROM QUEUE OF SCANNER NODE WHICH PROCESSED SCAN ORDER OR REQUEST COUNT REDUCTION OF SUCH SCAN ORDER.
810
CHECK SCAN ORDER TO SEE IF SCAN ORDER WAS SENT TO ANY OTHER SCANNER NODES ON COMPUTER NETWORK.
815
820
WAS SCAN ORDER SENT TO OTHER SCANNER NODES ON COMPUTER NETWORK ?
YES
NO
825
SEND E-MAIL FROM SCANNER NODE WHICH PROCESSED SCAN ORDER TO OTHER SCANNER NODES REQUESTING REMOVAL OF SCAN ORDER FROM QUEUE OR NOTIFICATION OF COUNT REDUCTION.
830
END

FIGURE 8

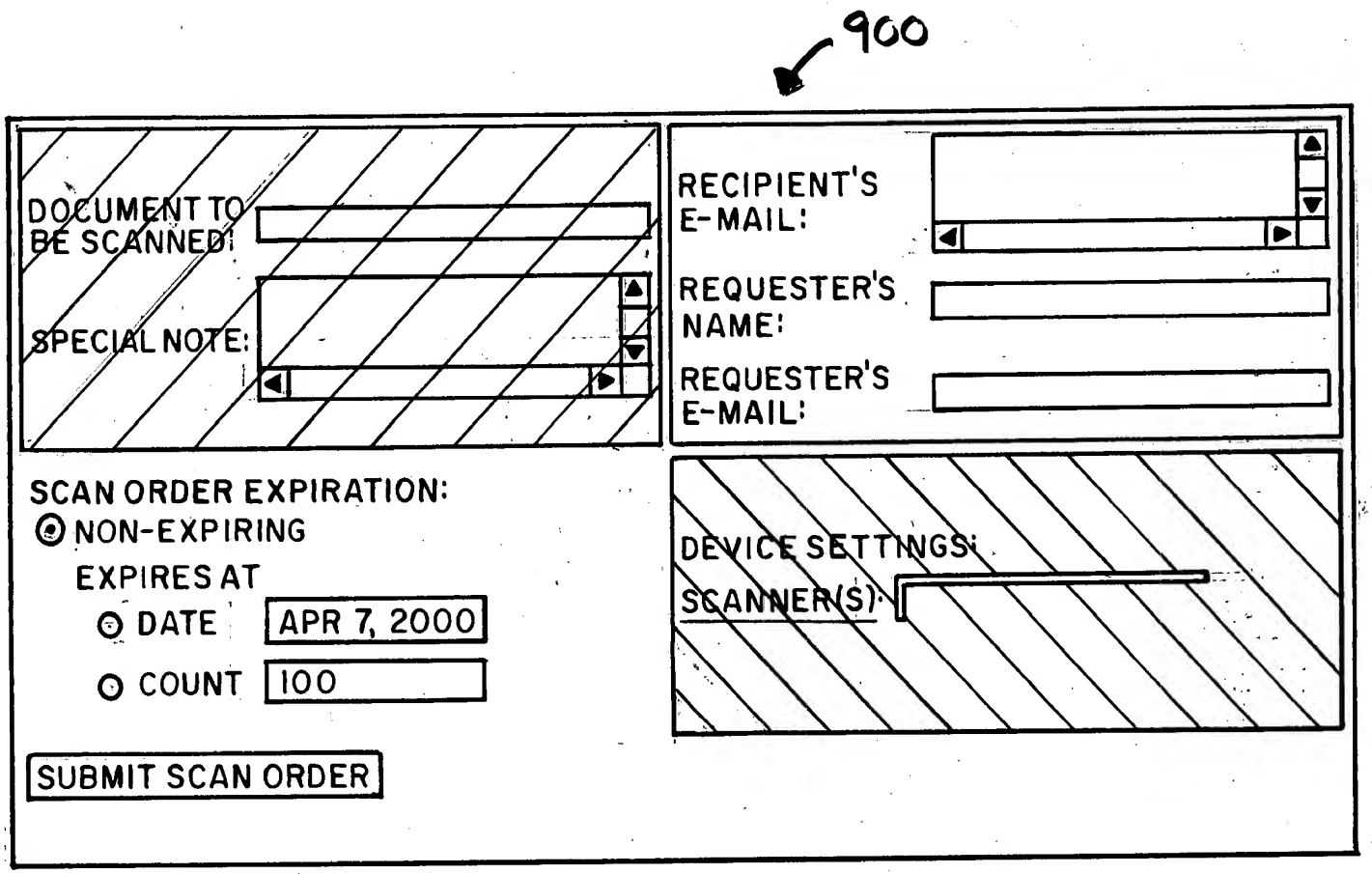
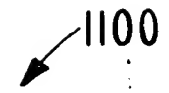

900
DOCUMENT TO BE SCANNED:
SPECIAL NOTE:
RECIPIENT'S E-MAIL:
REQUESTER'S NAME:
REQUESTER'S E-MAIL:
SCAN ORDER EXPIRATION:
NON-EXPIRING
EXPIRES AT
DATE
APR 7, 2000
COUNT
100
DEVICE SETTINGS:
SCANNER(S):
SUBMIT SCAN ORDER

FIGURE 9

1000

SELECT	ID	NAME	MODEL	COLOR	CITY	LOCATION	SITUATED AT	CONTACT PHONE	NOTE
☐	1	CRA ALPHA SCANNER	ALPHA-01	NO	PALO ALTO	CANON RESEA-RCH CENTER AMERICA	CENTRAL COPYING AREA		
☐	2	TOKYO CB2	ALPHA-01	NO	TOKYO	CANON HEAD-QUARTERS	BUILDING CB, SECOND FLOOR PRINT ROOM		
☐	3	GERDA	ALPHA-01	NO	FRANKFURT-AM-MAIN	CANON DEUTSCHLAND	HANS BAU		

FIGURE 10



DATE: 29 DEC 99 02:46:47
FROM: SANOOSH@CRA.CANON.COM
TO: NETSCAN@CRA.CANON.COM
<SCANNER>100</SCANNER>
<BUTTON>SUBMIT SCAN ORDER</BUTTON>
<NOTE>PLEASE SCAN ALL PAGES INCLUDING BLANK ONES</NOTE>
<DOCUMENT>RFC1939</DOCUMENT>
<COUNT>100</COUNT>
<REQUESTERNAME>SAEED ANOOSHFAR</REQUESTERNAME>
<TIME>APR 7, 2000</TIME>
<REQUESTEREMAIL>SANOOSH@CRA.CANON.COM</REQUESTEREMAIL>
<RECIPIENTS></RECIPIENTS>
<EXPIRATION>V1</EXPIRATION>
X-UIDL: 945910275
STATUS: U

FIGURE 11

FIGURE 12

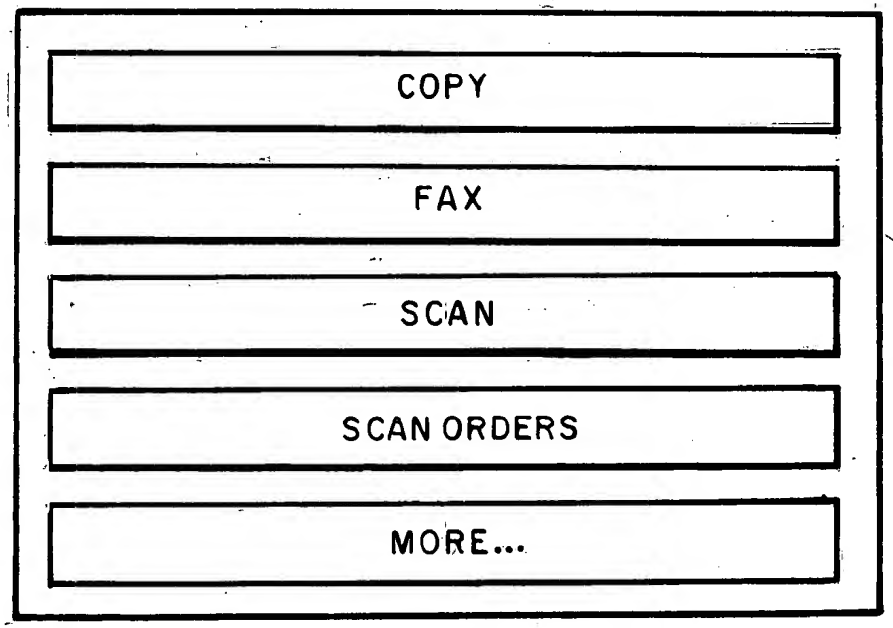


FIGURE 12A

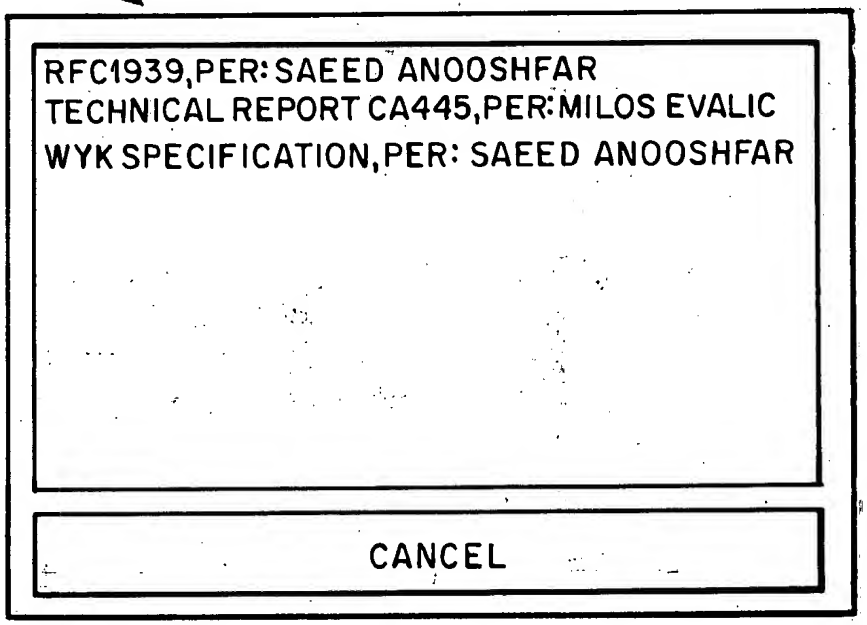


FIGURE 12B

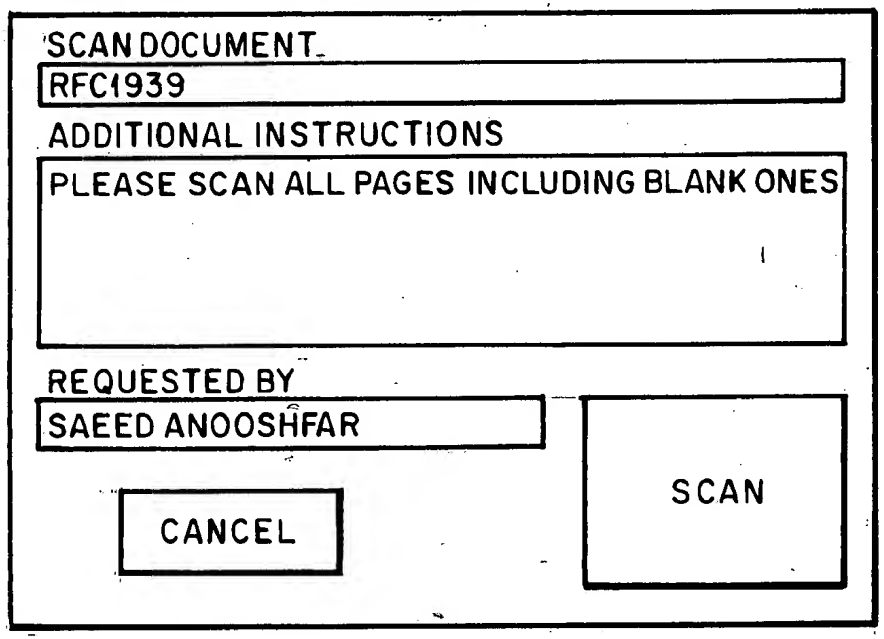


FIGURE 12C

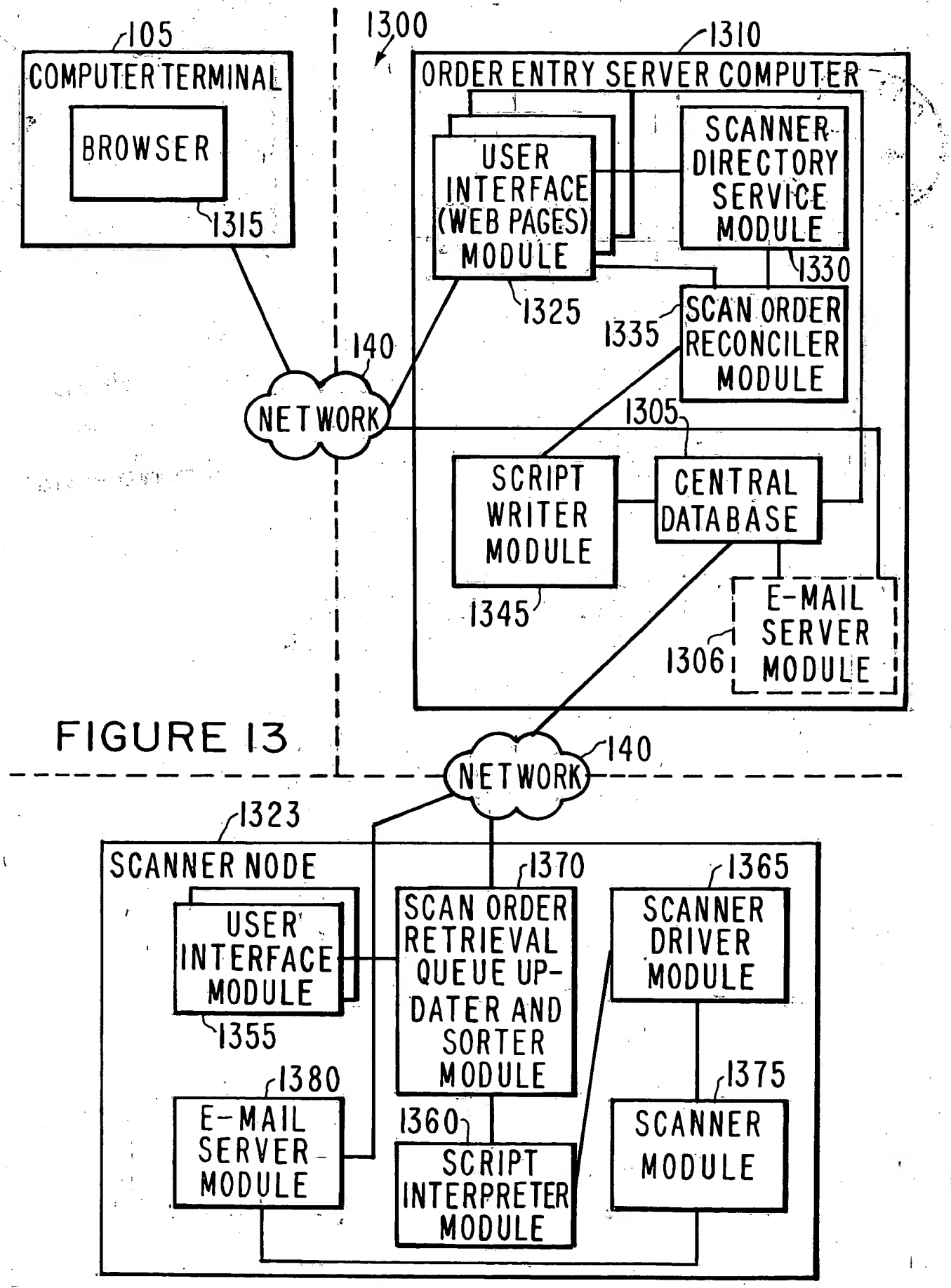

105
COMPUTER TERMINAL
BROWSER
1315
1300
1310
ORDER ENTRY SERVER COMPUTER
USER INTERFACE (WEB PAGES) MODULE
1325
SCANNER DIRECTORY SERVICE MODULE
1330
SCAN ORDER RECONCILER MODULE
1335
140
NETWORK
1305
SCRIPT WRITER MODULE
1345
CENTRAL DATABASE
E-MAIL SERVER MODULE
1306
140
NETWORK
1323
SCANNER NODE
USER INTERFACE MODULE
1355
1380
E-MAIL SERVER MODULE
1370
SCAN ORDER RETRIEVAL QUEUE UP-DATER AND SORTER MODULE
1360
SCRIPT INTERPRETER MODULE
1365
SCANNER DRIVER MODULE
1375
SCANNER MODULE

FIGURE 13

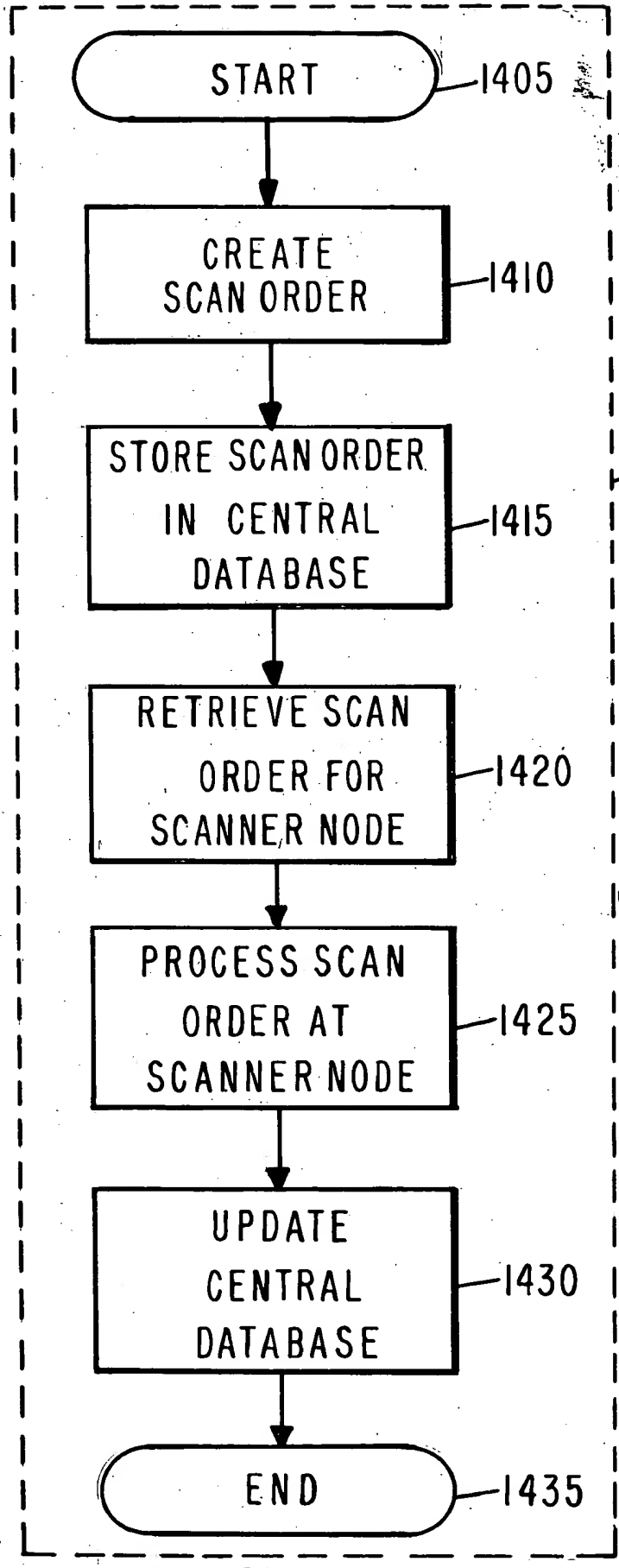

START
1405
CREATE SCAN ORDER
1410
STORE SCAN ORDER IN CENTRAL DATABASE
1415
1400
RETRIEVE SCAN ORDER FOR SCANNER NODE
1420
PROCESS SCAN ORDER AT SCANNER NODE
1425
UPDATE CENTRAL DATABASE
1430
END
1435

FIGURE 14